

Aushang

Seminar on Algebra and Model Theory:
Galois-characterization of p -adic numbers

WS 2022/2023

Prof. Urs Hartl and JProf. Franziska Jahnke
Wednesdays, 8:30 - 10:00, SR1D

The absolute Galois group of a field K is the group of automorphisms of the algebraic closure of K that fix K pointwise. In this seminar, we study fields K whose absolute Galois group is isomorphic to that of the field of the p -adic numbers \mathbb{Q}_p . The aim of the seminar is to show that any such field admits an unramified henselian valuation of mixed characteristic with finite residue field of cardinality p taking values in a \mathbb{Z} -group, i.e., K is elementarily equivalent to the field of p -adic numbers.

The seminar is suitable for both Bachelor and Master students. Bachelor students may give their talks in German. The main prerequisite is good knowledge of Galois theory (for finite field extensions), as treated in most introductory algebra courses.

The preliminary meeting will take place in hybrid form, on
Tuesday, 5.7.22, at 12:00h (st!) in SR0
(Einsteinstr. 62, ground floor)
and in **Zoom** (Meeting ID 694 5968 9259, Password PADIC)

If you want to attend the seminar and cannot come to the preliminary meeting, please email franziska.jahnke@wwu.de